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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/443,712	11/19/1999	DAVID MICHAEL SPRAGUE	1322/8	7620
25297	7590	02/17/2004	EXAMINER	
JENKINS & WILSON, PA 3100 TOWER BLVD SUITE 1400 DURHAM, NC 27707				LEE, TIMOTHY L
ART UNIT		PAPER NUMBER		2662 27

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/443,712	SPRAGUE ET AL.
	Examiner	Art Unit
	Timothy Lee	2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 19 November 2003.
- 2a) This action is FINAL.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-10, 48-57 and 79-88 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-10, 48-57 and 79-88 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 24.
- 4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Introductory Remarks***

1. Claims 1-10, 48-57, and 79-82 remain rejected as they were in the previous Office Action. Claims 6-9 and 53-56, however, are rejected under different art.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5-10, 48-50, 52-57 and 79-88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curry et al. (US 5,923,659). Curry et al. discloses a system and method for controlling two or more telecommunications networks which are themselves capable of exercising a form of common channel signaling network control. In Fig. 12, Curry et al. discloses the receiving of an SS7 packet message at an STP from an SSP (receiving at a first STP a first SS7 user part message). Inherently, if the SSP is sending an SS7 packet message to the STP over link, the link itself must be a type of SS7 link (over an SS7 signaling link). When the STP recognizes that a foreign prefix exists, it directs the packet to the Internet Module, where the Module performs the necessary address determination and adds the appropriate addressing and instructional overhead to encapsulate the packet in one or more TCP/IP packets, and transmits the packet over the Internet (encapsulating the SS7 user part message in a first IP packet; transmitting the IP packet to a second SS7 signaling point over an IP network; IP packet includes

adding a TCP header). See Fig. 12, and col. 21, lines 12-50. Curry et al. does not expressly disclose performing the encapsulation of an SS7 packet and the transmitting of the newly encapsulated packet at the signal transfer point. However, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the functions of the Internet Module with the functions of the signal transfer point. One would have been motivated to do this because it would streamline the setup, thus making the system more compact and reducing the number of components needed to make the system.

4. Regarding claims 3 and 50, Curry et al. does not expressly disclose adding a UDP header on the SS7 user part message, but it would have been obvious to do this. One would have been motivated to do this because Curry et al. discloses adding a TCP header, and UDP and TCP are very similar protocols and both work on the same layer—having the capabilities to add TCP would have also allowed UDP to be added.

5. Regarding claims 5 and 52, Curry et al. does not mention termination user part layer communications (transmitting the first IP packet without terminating user part layer communications).

6. Regarding claims 10 and 57, Curry et al. describes sending the packet over foreign lands, so this would indicate that the message is being transmitted to and from different local areas, and therefore, classify as an E link between the first STP and the SSP.

7. Regarding claims 6 and 53, the connection between the STP 118 and the SSP 142 in Fig. 12 can be considered equivalent to an “A link” because it connects an STP with an signaling endpoint. Just as it was obvious to combine the Internet Module into the STP, similar reasoning also applies to putting the Internet Module into the SSP in order to complete the connection.

8. Regarding claims 7, 9, 54 and 56, the connection between the STP 118 and the STP 148 can be considered equivalent to a “B link” or a “D link” because it connects one STP to another STP. Thus, the IP network replaces the B link or the D link. In the art, it difference between a D link and a B link is very arbitrary and are often the same type of link.

9. Regarding claims 8 and 55, the connection between the STP 118 and the STP 148 can also be thought equivalent to a “C link” if the two STP’s are a mated pair.

10. Regarding claims 79 and 81, Curry et al. discloses using ISDN user part messages as part of the call control application protocol of SS7 (SS7 user part messages comprises an ISDN user part message). See col. 14, lines 6-20.

11. Regarding claims 80 and 82, the first signal transfer point naturally intercepts calls directed to a second signal transfer point simply by being in the connection process—all calls directed to the second signal point located over the Internet must go through the first signal transfer point at some point in the process (intercepting a SS7 message). As mentioned previously, the Internet module performs the necessary address determination and adds the appropriate addressing and overhead to encapsulate the packet in TCP/IP packets (inserting a destination IP address corresponding to the second signal transfer point). At the second signal point, there is an end office for receiving the call sent over the Internet (second signal point comprises an end office for a call associated with the first SS7 message).

12. Regarding claims 83 and 86, as mentioned previously, the STP from Curry et al. receives SS7 user part messages from an SS7 link. It is inherent that the STP has an SS7 link interface as long as it must connect to an SS7 link. Also, in the combined Internet Module/STP discussed above, this combined structure must also have a data communication module for communicating

signaling over the IP signaling links. It is also inherent that there is a connection between the SS7 link interface and the data communications module so that data can pass from one interface to the other (IMT bus).

13. Regarding claims 84 and 87, Curry et al. discloses that the STP must make a routing decision based on the point code information in the packet and routes the packet according to that information. It will forward the packet to the Internet Module when the information tells it to do so.

14. Regarding claims 85 and 88, as mentioned previously, the Internet Module performs the functions of encapsulating the SS7 user part message. In the obvious combination of the Internet Module and the STP discussed above, this action would occur in the combined system.

15. Claims 4 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curry et al. in view of Schrodi et al. (US 5,173,897), in light of the rejections to claims 1 and 48. Curry et al. does not expressly disclose including an application-level sequence number to the SS7 user part message. Schrodi et al. discloses adding a sequence number to ATM cells in transmission. See col. 1, lines 34-47. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the teachings from Schrodi et al. of adding sequence numbers to packets in the SS7 packets disclosed by Curry et al.. One of ordinary skill in the art would have been motivated to do this because adding sequence numbers allows the receiver to know if a packet fails to transmit, or if the packets get transmitted out of sequence.

16. Claims 4 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curry et al. in view of Schrodi et al. (US 5,173,897), in light of the rejections to claims 1 and 48. Curry et al. does not expressly disclose including an application-level sequence number to the SS7 user

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part message. Schrodi et al. discloses adding a sequence number to ATM cells in transmission. See col. 1, lines 34-47. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the teachings from Schrodi et al. of adding sequence numbers to packets in the SS7 packets disclosed by Curry et al.. One of ordinary skill in the art would have been motivated to do this because adding sequence numbers allows the receiver to know if a packet fails to transmit, or if the packets get transmitted out of sequence.

***Response to Arguments***

17. Applicant's arguments with respect to claims 6-9 and 53-56 have been considered but are moot in view of the new ground(s) of rejection.

18. Applicant's arguments filed November 19, 2003 have been fully considered but they are not persuasive.

19. In response to Applicant's argument that the Examiner fails to provide "a convincing line of reasoning" as to why someone in the art would have found the claimed invention obvious, the Examiner respectfully disagrees. The Examiner still contends that making the overall system more compact and reducing the number of components are two legitimate and convincing reasons for someone in the art to combine the two elements. Applicant also argues that none of this motivation was found in the Curry et al. reference. However, the motivation for combining two elements does not have to originate the reference itself. The test for obviousness is whether a person of ordinary skill in the art would have been motivated to combine the elements at the time of the invention.

20. As an additional argument, the Examiner also contends that Applicant's claimed invention is a "mere aggregation of old elements which in their new combination perform no new function and achieve no new result." Henry Manufacturing Co., Inc v. Commercial Filters Corp., 350 F.Supp. 1015, 1018 (S.D Indiana 1971). A machine composed of elements of the prior art is only patentable if the combination produces a new and useful result. Id. In particular, combination patent claims are to be scrutinized with a care proportioned to the difficulty and improbability of finding an invention in the assembly of old elements. Id. In Applicant's claimed invention, the "improvement" that Applicant seeks is simply a combination of the functions of the Internet Module of Curry et al. with a conventional STP. However, this is only a combination of old elements, and Applicant has not claimed that the combination achieves any new results or new functions—it performs the same function as described in Curry et al., except all of the functions occur in one unit as opposed to two. Thus, as described in Henry Manufacturing, Applicant has added "nothing to the total stock of knowledge, but has merely brought together segments of prior art and claims them in congregation as a monopoly." Id. Because the combination of the STP and the Internet Module is a simple aggregation of old elements, the combination is not patentable over the prior art.

21. In response to Applicant's argument that the concern of reliability would lead someone of ordinary skill in the art away from adding this functionality to the STP, the Examiner respectfully disagrees. Applicant submitted an article (Exhibit A) as evidence illustrating the consequences of STP failure. The article discusses a failure that occurred to an STP as the result of a software upgrade. In response to the article, the Examiner does not believe that the possibility of a failure would lead someone away from adding functionality to the STP. In

upgrading any kind of system with new software, the person doing the upgrading runs the risk of causing a problem that did not exist before. The risk of causing a system failure, however, does not necessarily discourage people from trying to enhance their current systems. In fact, the Examiner sees the article as evidence possibly supporting the argument that it would have been obvious to add more capabilities to the STP. In this case, the administrator of the system decided that the STP's functionality would be improved by giving it this upgrade. Unfortunately, some failure with the software caused a failure in the system, but the act of trying to upgrade the system shows that people of skill in the art did not believe that the STP was a standalone entity that was never to be altered. Thus, adding functionality to the STP is an obvious idea.

22. In response to Applicant's argument that the reported sales of the IP7 equipment evince commercial success of Applicant's invention, the Examiner respectfully disagrees. A mere showing of sales and gross receipts is insufficient to establish the requisite nexus. Ex Parte Remark, 1990 WL 354512, 15 U.S.P.Q.2d 1498 (Bd.Pat.App & Interf. 1990). The court also emphasized in that case that in the absence of further economic evidence, evidence about reported sales was a "fairly minimal" indicator of commercial success. Without further economic evidence, for example, it would be improper to infer that the reported sales represent a substantial share of any definable market or whether the profitability per unit is anything out of the ordinary in the industry involved. Id. In this case, Applicant merely offers sales figures as of June 2000 of the IP7 product line. However, Applicant's evidence of sales of the IP7 equipment without other economic evidence is insufficient to establish a nexus between the product and commercial success.

23. In response to Applicant's argument that the burden of proof shifts to the Examiner as long as Applicant proves 1) that the IP7 products are commercially successful and 2) that the IP7 products embody the invention disclosed, the Examiner respectfully disagrees. Assuming arguendo that the Applicant proves these two elements, the burden does not shift to the Examiner to show that the commercial success is due to other factors. Id. Applicant relies on the ruling from Demaco Corp. v. F. Vaughan Langsdorf Ltd., 851 F.2d 1387, 1392 (1988) to argue that the burden of coming forward with evidence in rebuttal shifts to the challenger. However, Applicant failed to note that this burden only shifts in cases involving civil litigation and not in proceedings with the Patent and Trademark Office. Ex Parte Remark. As stated by the court in Ex Parte Remark, the shifting of the burden is appropriate in civil litigation, presumably because the challenger has the opportunity through discovery proceedings and other evidence gathering means to adduce such rebuttal evidence. In contrast, the Examiner has no available means for adducing evidence to show that the commercial success was due to extraneous factors. For this reason, the court in Ex Parte Remark finds that the evidentiary routine pertaining to the shifting of the burden upon presenting a prima facie case of nexus is inapplicable to proceedings with the Office.

24. Applicant also submits an article entitled "Orange jumps Leaps into IP" to try to establish the nexus. Applicant argues that because Orange requested information on a new STP, Orange initiated the contact with Telekec, so Telekec did not use extensive advertising to sell the product. Assuming arguendo that extensive advertising was not used, there are still other factors (some of which are listed in Ex Parte Remark) that could have affected the sales of the product. Aside from advertising, the sales could have resulted from "price concessions to get the product

moving or purchases by an affiliate or controlled company." Ex Parte Remark. Also, at the time of this sale, the hype surrounding the Internet was at a peak, and many companies were able to capitalize on the Internet's popularity. Thus, as mentioned previously, without further economic evidence, it would be improper to infer that the reported sales were anything out of the ordinary for the industry. Because Orange could have chosen to use Telekec's for a host of reasons, the Examiner cannot infer that Orange chose Telekec solely for product's functional characteristics, which may or may not be patentable.

25. In response to Applicant's argument that the combination Curry and Schrodi et al. does not teach the features of claims 4 an 51, the Examiner respectfully disagrees. As mentioned in the rejection, Examiner relies on Schrodi et al. for the use of sequence numbers. Schrodi et al. teaches the use of sequence numbers, and this teaching is applied to the packets that are sent in the network of Curry. The motivation is given in the rejection. Thus, Examiner believes the rejection is proper.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy Lee whose telephone number is (703)305-7349. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (703)305-4744. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9314.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

TLL  
Timothy Lee  
January 27, 2004



HASSAN KIZOU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600